

system resource, to alter a manner in which the at least one application program accesses the at least one computer system resource.

REMARKS

In response to the Office Action dated December 26, 2002, Applicants respectfully request reconsideration. To further the prosecution of this application, amendments have been made in the claims, and the claims as presented are believed to be in allowable condition.

Initially, Applicants' representatives wish to thank Examiner Willett for the courtesies extended in granting and conducting a telephone interview on February 6, 2003. The substance of the telephone interview is summarized below.

All of the pending claims (i.e., claims 1-20, 34-50 and 62-77) are rejected under 35 U.S.C. §103 as purportedly being obvious over Ma in view Ha. These rejections are respectfully traversed.

The Combination of Ma and Ha Under §103 is Improper

A summary of Ma and Ha is provided in Applicants' previous response (filed 11/6/02), which is incorporated herein by reference, such that the summary is not repeated here.

The Office Action asserts that one of ordinary skill in the art would have been motivated to incorporate the BIOS accessing method taught by Ha into the upgradeable system of Ma "because Ma operates with methods to access mobile objects in a distributed system and Ha suggested that optimization can be obtained with access methods." Applicants respectfully disagree.

As discussed during the telephone interview, Ma is directed to a technique for updating a distributed application (such as a database) in a manner that does not require re-initialization (e.g., col. 4, lines 12-14), whereas Ha is directed to a technique for upgrading a BIOS and specifically teaches that following the upgrade the computer must be rebooted. (col. 5, lines 23-24). The techniques for updating a distributed application such as that in Ma are different than those for updating a BIOS, such that it is respectfully asserted that one of ordinary skill in the art would not have been motivated to make any modification whatsoever to Ma based upon Ha. Furthermore, since the Ha updating technique requires re-initialization, one of ordinary skill in the art would not have been motivated to employ the Ha technique in the system of Ma, as it

would have frustrated the express teachings of Ma that the updating of the application be performed without re-initialization. Thus, Ma and Ha teach away from the combination asserted in the Office Action.

In view of the foregoing, it is respectfully asserted that the combination of Ma and Ha under 35 U.S.C. §103 is improper, such that the rejection of all of Applicants' claims under §103 as being obvious over these references should be withdrawn.

III. The Claims Patentably Distinguish Over the Combination

A. Claims Direct to Aspect of the Present Invention Relating to Determining A Different Configuration For A Computer System and The Manner in Which A Computer System Resource is Accessed in The Different Configuration

Claims 1-13

As discussed during the telephone interview, neither Ma nor Ha teaches comparing a second computer system configuration with a first configuration to determine whether the second configuration differs from the first as recited in claim 1. The Office Action contends that Ma teaches such a comparison at col. 7, lines 19-21, but the cited passage merely demonstrates that Ma implements code changes defined by a user, and does not teach that a comparison occurs between new and old version of the code. At col. 7, lines 13-22, Ma teaches:

Once a user has finished defining the changes, these changes are sent to the server for updating the application. From the user's definitions, the server re-generates the source code for changed class definitions of objects, step 48. The object class definitions are re-compiled and re-linked, step 50. Some of the existing object instances now no longer match their modified object class definitions. Notification is made from the server that some object classes have changed, step 52. The newly modified classes are loaded to the server, using a cache of classes.

As should be appreciated from the foregoing, in the system of Ma, changes to the database are defined by a user, and then the techniques disclosed therein are employed to implement those changes. There is simply no teaching in Ma of comparing the versions of code at two different points in time to determine whether they are different.

The Office Action asserts that there are numerous references that relate to updating software, files, etc. and that these "inherently teach comparing or determining whether there are

differences in code.” (Office Action, page 5). As discussed during the interview, the Applicants respectfully disagree, and request that the Examiner make of record any reference that is believed to support the rejection, as Applicants cannot respond to purportedly relevant prior art that is not of record.

Furthermore, as discussed during the telephone interview, Applicants respectfully assert that the assertion that the capability of providing a software update inherently teaches comparing two versions of code is simply incorrect. An inherency rejection can only be maintained if the feature that is alleged to be inherently disclosed is **necessarily** present in the reference, i.e., no other alternative (no matter how remote) is possible. As discussed during the telephone interview, Ma (and assumedly numerous other of the types of references the Examiner is alluding to) teaches updating an application. A software provider that updates code from one version to the next knows what the differences are in the versions, such that when an update is installed on a new computer system, that computer system need not do any comparison to identify the differences, as the differences are already known to the software provider.

As should be appreciated from the foregoing, the prior art of record simply does not teach comparing configurations of a computer system as recited in claim 1, such that claim 1 patentably distinguishes over the prior art of record.

Furthermore, claim 1 recites comparing configurations that differ in the manner in which the host computer accesses at least one computer system resource accessible to the host computer. The combination of Ma and Ha alleged in the Office Action to render the claims obvious under §103 relates to a technique for updating an application such as a database. The database application is an application program that executes on the host computer, and is not a computer system resource accessible to the host computer. Updating the database application as taught by Ma (e.g., to add, delete or modify fields in the database as discussed at col. 7, lines 6-7) does not alter the manner in which the database application, or any other aspect of the host computer, accesses a computer system resource accessible to the host computer. Thus, the prior art of record also fails to teach a step of determining a second manner of accessing a computer system resource by a host computer as recited in step (D) of claim 1. Claim 1 patentably distinguishes over the prior art of record for this additional reason.

As should be appreciated from the foregoing, neither Ma nor Ha teaches either comparing configurations or determining a manner of accessing a computer system resource as recited in claim 1. Therefore, it is respectfully asserted that the Office Action fails to set forth a prima facie case of obviousness with respect to claim 1, as it does not demonstrate how the combination of Ma and Ha teaches all of the limitations recited in the claim. It is respectfully asserted that claim 1 patentably distinguishes over the prior art of record, such that the rejection of claim 1 under §103 should be withdrawn.

Claims 2-13 depend from claim 1 and are patentable for at least the same reasons.

Claims 34-44

Independent claim 34 is directed to a computer-readable medium that, when executed on a host computer, performs a method substantially similar to the method recited in claim 1. Therefore, for the reasons set forth above with respect to claim 1, claim 34 patentably distinguishes over the prior art of record, such that the rejection of claim 34 under 35 U.S.C. §103 should be withdrawn.

Claims 35-44 depend from claim 34 and are patentable for at least the same reasons.

Claims 62-71

Independent claim 62 is directed to a host computer comprising, inter alia, comparing means for comparing a second configuration with a first configuration to determine whether they differ, and second determining means for determining a manner of accessing at least one computer system resource by the host computer when it is determined that the first and second configurations differ. As should be appreciated from the foregoing, neither Ma nor Ha teaches means for comparing two configurations to determine whether they differ, nor means for determining the manner in which a host computer accesses at least one computer system resource accessible to the host computer. Thus, it is respectfully asserted that the Office Action fails to set forth a prima facie case of obviousness with respect to claim 62, as it fails to demonstrate how all of the limitations of claim 62 are met by the prior art. Therefore, it is respectfully requested that the rejection of claim 62 under 35 U.S.C. §103 be withdrawn.

Claims 63-71 depend from claim 62 and are patentable for at least the same reasons.

B. Claims Directed to The Embodiment of the Present Invention
Relating to Dynamic Reconfiguration

Claims 14-20

Initially, Applicants note that the rejection of claim 14 recited at ¶9 of the Office Action does not explain how all of the limitations in the claim are met by the prior art, and does not even explain how the teachings of Ma are believed to be modified based on Ha to achieve a method as recited in claim 14. Rather, the Office Action merely asserts that Ma teaches updating without re-initialization, and asserts that “the above claim limitations are obvious in view of the combination” for that reason. Applicants respectfully assert that the Office Action fails to set forth a prima facie case of obviousness for numerous reasons, including the fact that it does not even purport to explain how the alleged combination meets all of the limitations of claim 14. For this reason alone, it is respectfully asserted that the rejection is improper. If the rejection of claim 14 is to be maintained, Applicants respectfully assert that a new Office Action be issued that explains how the combined prior art references “teach or suggest all the claim limitations” as required under MPEP §706.02(j).

As discussed above, Ma does not teach a method of reconfiguring a computer system to alter the manner in which an application program accesses at least one computer system resource accessible to the application program, as Ma merely teaches the updating of an application, such as a database. Updating an application does not alter the manner in which the application program accesses at least one computer system resource.

During the telephone interview, it was discussed whether the updating of the system BIOS as taught by Ha could be considered to reconfigure the computer system to alter the manner in which an application program accesses at least one computer system resource. Applicants pointed out that if Ha could be interpreted in that manner, Ha requires that such a change can only be made by rebooting the system, such that Ha does not teach a dynamic reconfiguration of a computer system. In this respect, the reconfiguration of a computer system to alter the manner in which an application program accesses a resource is a significantly more invasive change to the system than simply updating an application as taught by Ma. Therefore,

the fact that Ma teaches that a less intrusive modification of a computer system can be performed dynamically, teaches absolutely nothing about performing a dynamic reconfiguration of the computer system that alters the manner in which an application program accesses a resource.

As should be appreciated from the foregoing, it is respectfully asserted that the combination of Ma and Ha does not teach or suggest the method recited in claim 14. During the telephone interview, the Examiner expressed a concern that claim 14 was quite broad, and discussed potential modifications to a computer system that could impact the manner in which an application program accesses a resource such as a storage volume. An example discussed was a file system having the capability of moving the location of data corresponding to a particular file from one volume to another. As such a modification is transparent to the application program, it was discussed whether such a modification could be considered to constitute a dynamic reconfiguration of the system.

To address the foregoing concern, Applicants have amended claim 14, to clarify what is meant by modifications relating to a reconfiguration of the computer system. Specifically, claim 14 has been amended to recite the host computer as comprising an operating system that uses at least one identifier to enable access to the at least one computer system resource, and recites the dynamic reconfiguration as being in response to a change in the computer system configuration that changes the at least one identifier. Support for this amendment is included, for example, in Applicants' specification at page 14, lines 13-15; page 15, lines 19-24.

It should be clear that the movement of the data for particular files that the Examiner discussed when raising concerns about the breadth of claim 14 does not constitute a reconfiguration of the system of the type recited in claim 14, as the identifier used by the operating system to access a computer system resource (e.g., storage volume) is not altered. The prior art of record simply does not teach or suggest the dynamic reconfiguration of a computer system in response to a change in configuration that results in a change in an identifier used by the operating system to access a computer system resource.

For the foregoing reasons, it is respectfully asserted that the rejection of claim 14 under §103 is improper, and should be withdrawn.

Claims 15-20 depend from claim 14 and are patentable for at least the same reasons.

Claims 45-50

Independent claim 45 is directed to a computer-readable medium that, when executed on a host computer, performs a method substantially similar to that recited in claim 14. Therefore, for the reasons set forth above, claim 45 patentably distinguishes over the prior art of record, such that the rejection of claim 45 under 35 U.S.C. §103 should be withdrawn.

Claims 46-50 depend from claim 45 and are patentable for at least the same reasons.

Claims 72-76

Claim 72 is directed to a host computer comprising an operating system that uses at least one identifier to enable access to at least one computer system resource, and at least one controller to dynamically reconfigure the computer system in response to a change in configuration that changes the at least one identifier used by the operating system to enable access to the at least one computer system resource.

As should be clear from the discussion above in connection with claim 14, the prior art of record does not teach or suggest a host computer including at least one controller to dynamically reconfigure the host computer system to alter a manner in which an application program accesses the at least one computer system resource in response to a change in configuration that results in a change in an identifier used by the operating system to access a computer system resource. Therefore, it is respectfully asserted that the Office Action fails to set forth a prima facie case of obviousness with respect to claim 72, such that the rejection of claim 72 under 35 U.S.C. §103 is improper and should be withdrawn.

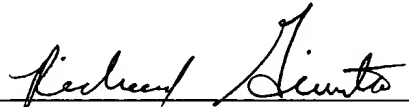
Claims 73-76 depend from claim 72 and are patentable for at least the same reasons.

CONCLUSION

In view of the foregoing amendments and remarks, this application should now be in condition for allowance. A notice to this effect is respectfully requested. If the Examiner believes, after this amendment, that the application is not in condition for allowance, the Examiner is requested to call the Applicants' attorney at the telephone number listed below to discuss any outstanding issues relating to the allowability of the application.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 23/2825.

Respectfully submitted,
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MARKED-UP CLAIMS

14. (Amended) In a computer system including a host computer and at least one computer system resource accessible to at least one application program executing on the host computer, wherein the host computer comprises an operating system and the operating system uses at least one identifier to enable access by the host computer to the at least one computer system resource, a method of reconfiguring the computer system, the method comprising a step of:

A) dynamically reconfiguring the computer system, without reinitializing the host computer or the application program, in response to a change in a configuration of the computer system that changes the at least one identifier used by the operating system to enable access by the host computer to the at least one computer system resource, to alter a manner in which the at least one application program accesses the at least one computer system resource.

45. (Amended) A computer readable medium encoded with a reconfiguration program for execution on a host computer in a computer system including the host computer and at least one computer system resource accessible to at least one application program executing on the host computer, wherein the host computer comprises an operating system and the operating system uses at least one identifier to enable access by the host computer to the at least one computer system resource, the reconfiguration program, when executed on the host computer, performs a method of reconfiguring the computer system, the method comprising a step of:

A) dynamically reconfiguring the computer system, without reinitializing the host computer or the application program, in response to a change in a configuration of the computer system that changes the at least one identifier used by the operating system to enable access by the host computer to the at least one computer system resource, to alter a manner in which the at least one application program accesses the at least one computer system resource.

72. (Amended) A host computer for use in a computer system including the host computer and at least one computer system resource accessible to at least one application program executing on the host computer, the host computer comprising:

an operating system and the operating system uses at least one identifier to enable access by the host computer to the at least one computer system resource; and

at least one controller to dynamically reconfigure the host computer [system], without reinitializing the host computer or the application program, in response to a change in a configuration of the computer system that changes the at least one identifier used by the operating system to enable access by the host computer to the at least one computer system resource, to alter a manner in which the at least one application program accesses the at least one computer system resource.